**Amendments to the Claims**

Please amend the claims as follows. This listing of claims will replace all prior versions and listing of claims in the application.

Claim 1 (Currently Amended): A system for detection of an object in an area in space, the system comprising:

a light source for generating a beam of coherent light;

a first beam splitter for splitting the coherent light into a reference beam and an object beam;

an imager;

a second beam splitter for directing coherent light from the source as an imaging beam to the imager, wherein the imager is for projecting an original holographic image onto the area;

a reception device for sensing the imaged area, wherein the reception device is specifically balanced for a spectral range corresponding to the waves generated by the image, and wherein the ~~imager is for projecting a~~ reference beam and ~~an~~ the object beam ~~that~~ interfere at a sensing surface of the reception device; and

a computer in communication with the reception device and the imager, wherein the computer is for determining a difference pattern between an interference pattern for the original holographic image and an interference pattern for the image sensed by the reception device, and wherein the difference pattern is used to project a modified holographic image that represents a change in the

original holographic image that results from an object interacting with the original holographic image.

Claim 2 (Previously Presented): The system according to claim 1, wherein the imager comprises a reflective solid state imaging device.

Claim 3 (Original): The system according to claim 1, wherein the reception device is a solid state sensing device.

Claim 4 (Previously Presented): The system according to claim 1, wherein the original holographic image represents one of an input terminal, a keyboard, a pointing device, a game, and a musical instrument.

Claims 5-12 (Canceled).

Claim 13 (Previously Presented): The system according to claim 1, wherein the imager comprises a transmissive solid state imaging device.

Claim 14 (Previously Presented): The system according to claim 1, wherein the sensor comprises a CCD video sensor.

Claim 15 (Previously Presented): The system according to claim 1, wherein the original holographic image comprises an image of a steering wheel.

Claim 16 (Currently Amended): A method comprising:

projecting a beam of coherent light from a light source;

splitting by a first beam splitter the coherent light into a reference beam and an object beam;

directing by a second beam splitter coherent light from the source as an imaging beam to an imager;

projecting an original holographic image from ~~an~~ the imager onto an area in a space~~, wherein projecting the image comprises projecting an reference beam and an object beam~~;

sensing the imaged area with a reception device, wherein the reference beam and the object beam interfere at a sensing surface of the reception device; and

determining a difference pattern between an interference pattern for the original holographic image and an interference pattern for the image sensed by the reception device; and

modifying the original holographic image projected by the imager based on the determined difference pattern, wherein the modification represents a change in the original holographic image that results from an object interacting with the original holographic image.

Claim 17 (Previously Presented): The method of claim 16, wherein:

the original holographic image represents a user input device for an object; and

the difference between the original holographic image and the interference pattern for the image sensed by the reception device is cause by user interaction with the image of the user input device.

Claim 18 (Previously Presented): The method of claim 17, wherein the user input device comprises a keyboard.

Claim 19 (Previously Presented): The method of claim 17, wherein the user input device comprises a steering wheel.

Claim 20 (Previously Presented): The method of claim 16, wherein determining the difference pattern between the interference pattern for the original holographic image and the interference pattern for the image sensed by the reception device comprises using a feature space analysis to determine the difference pattern.

Claim 21 (Previously Presented): The method of claim 16, wherein determining the difference pattern between the interference pattern for the original holographic image and the interference pattern for the image sensed by the reception device comprises using a bit mapping to determine the difference pattern.